

WHAT IS CLAIMED IS:

1. An information retrieving system for retrieving design/manufacturing information of a great variety of file formats registered in a plurality of web servers, by using  
5 an index server, said information retrieving system comprising:

a transmitting unit that transmits an abstract and storage location information of design/manufacturing information registered in said web servers, to an index  
10 server during an idle time of the web servers; and

an automatic registering unit that automatically registers an abstract and storage location information transmitted from said web servers by said transmitting unit,  
into said index server.

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2. The information retrieving system according to claim  
1,

wherein said transmitting unit is a register processing agent that transmits an abstract and storage  
20 location information of the design/manufacturing information.

3. The information retrieving system according to claim  
2,

25 wherein said transmitting unit includes,

an abstract generating unit that generates an abstract of the design/manufacturing information;

a storage location information generating unit that generates storage location information showing a storage  
5 location of the design/manufacturing information; and

an information transmitting unit that transmits an abstract generated by said abstract generating unit and storage location information generated by said storage location information generating unit respectively, to said  
10 index server during an idle time of said web servers.

4. The information retrieving system according to claim  
3,

wherein said abstract generating unit converts the  
15 design/manufacturing information into a text, and then converts this text into an XML format, thereby to generate an abstract of the text and the XML format.

5. The information retrieving system according to claim  
20 3,

wherein said storage location information generating unit generates URLs as addresses of said web servers on the Internet.

6. The information retrieving system according to claim  
3,

wherein said information transmitting unit further includes,

5 a first repository that stores an abstract generated by said abstract generating unit and storage location information generated by said storage location information generating unit, and transmits the abstract and the storage location information stored in the first repository to said  
10 index server during an idle time of said web servers.

7. The information retrieving system according to claim  
2,

15 wherein said automatic registering unit is a registration accept processing agent that automatically registers the abstract and the storage location information transmitted from said web servers by said transmitting unit,  
20 to said index server.

20 8. The information retrieving system according to claim  
7,

wherein said automatic registering unit includes,  
25 a second repository that stores an abstract and storage location information of the design/manufacturing information that have been transmitted from said

transmitting unit;

5           a storage unit that stores the abstract and the storage location information of the design/manufacturing information into the second repository during an idle time of said index server;

an ontology restructuring unit that restructures the consistency of the ontology of a hierarchical structure relating to the design/manufacturing information; and

10          a posting unit that posts to said web servers a message that an abstract and storage location information of the design/manufacturing information have been stored in said second repository.

9.         The information retrieving system according to claim  
15 8,

wherein the abstract and the storage location information of the design/manufacturing information are transferred between said first repository and said second repository by inter-repository communications.

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10.       The information retrieving system according to claim 1, further comprising an overview unit that has a bird's-eye view of the design/manufacturing information based on an abstract and storage location information of the design/manufacturing information registered in said index  
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server.

11. The information retrieving system according to claim  
1, further comprising a retrieving unit that retrieves  
5 design/manufacturing information based on an abstract and  
storage location information of the design/manufacturing  
information registered in said index server.

12. An information retrieving method for retrieving  
10 design/manufacturing information of a great variety of file  
formats registered in a plurality of web servers, by using  
an index server, the information retrieving method  
comprising:

a transmission step of transmitting an abstract and  
15 storage location information of design/manufacturing  
information registered in said web servers, to an index  
server during an idle time of said web servers; and

an automatic registration step of automatically  
registering an abstract and storage location information  
20 transmitted from web servers by said transmitting unit, into  
said index server.

13. The information retrieving method according to claim  
12,

25 wherein the transmission step is a step at which a

register processing agent transmits an abstract and storage location information of the design/manufacturing information.

5 14. The information retrieving method according to claim  
13,

wherein the transmission step includes,

an abstract generation step of generating an abstract of the design/manufacturing information;

10 a storage location information generation step of generating storage location information that shows a storage location of the design/manufacturing information; and

an information transmission step of transmitting an abstract generated at the abstract generation step and

15 storage location information generated at the storage location information generation step, to said index server during an idle time of said web servers.

15. The information retrieving method according to claim  
20 14,

wherein the abstract generation step is for converting the design/manufacturing information into a text, and then converting this text into an XML format, thereby to generate an abstract of the text and the XML format.

16. The information retrieving method according to claim  
14,

wherein the storage location information generation  
step is for generating URLs as addresses of said web servers  
5 on the Internet.

17. The information retrieving method according to claim  
14,

wherein the information transmission step further  
10 includes,

a storage step of storing into a first repository an  
abstract generated at the abstract generation step and  
storage location information generated at the storage  
location information generation step respectively,

15 wherein, at the information transmission step, the  
abstract and the storage location information stored in the  
first repository are transmitted to said index server during  
an idle time of said web servers.

20 18. The information retrieving method according to claim  
13,

wherein the automatic registration step is a step at  
which a registration accept processing agent automatically  
registers the abstract and the storage location information  
25 transmitted from said web servers at the transmission step,

to said index server.

19. The information retrieving method according to claim  
18,

5 wherein the automatic registration step includes,  
a storage step of storing an abstract and storage  
location information of the design/manufacturing  
information into a second repository during an idle time  
of said index server;

10 an ontology restructuring step of restructuring the  
consistency of the ontology of a hierarchical structure  
relating to the design/manufacturing information; and  
a posting step of posting to said web servers a message  
that an abstract and storage location information of the  
15 design/manufacturing information have been stored in the  
second repository.

20. The information retrieving method according to claim  
19,

20 wherein the abstract and the storage location  
information of the design/manufacturing information are  
transferred between the first repository and the second  
repository by inter-repository communications.

21. The information retrieving method according to claim  
12, further comprising an overview step of having a  
bird's-eye view of the design/manufacturing information  
based on an abstract and storage location information of  
5 the design/manufacturing information registered in said  
index server.

22. The information retrieving method according to claim  
12, further comprising a retrieval step of retrieving  
10 design/manufacturing information based on an abstract and  
storage location information of the design/manufacturing  
information registered in said index server.

23. An information retrieving method for retrieving  
15 design/manufacturing information of a great variety of file  
formats registered in a plurality of web servers, by using  
an index server, the information retrieving method  
comprising:

a transmission step of transmitting an abstract and  
20 storage location information of design/manufacturing  
information registered in said web servers, to an index  
server during an idle time of said web servers; and

an automatic registration step of automatically  
registering an abstract and storage location information  
25 transmitted from web servers by said transmitting unit, into

said index server,

wherein the information retrieving method is automatically carried out when registered information is dropped onto a registration icon prepared at the registration 5 side.

24. An information retrieving method for retrieving design/manufacturing information of a great variety of file formats registered in a plurality of web servers, by using 10 an index server, the information retrieving method comprising:

a transmission step of transmitting an abstract and storage location information of design/manufacturing information registered in said web servers, to an index 15 server during an idle time of said web servers; and

an automatic registration step of automatically registering an abstract and storage location information transmitted from web servers by said transmitting unit, into said index server,

20 wherein registered design/manufacturing information is managed in a repository based on a given drawing number system, and

when there is no suitable drawing number given, a drawing number of the registered information is 25 automatically generated from a drawing number or an abstract

in a higher-order system.

25. The information retrieving method according to claim  
25, wherein an allocation of a flow diagram and a material  
5 of an IDEF based on a work process diagram at a retrieving  
time can be freely selected from a menu of the drawing number  
system.

26. An information retrieving method for retrieving  
10 design/manufacturing information of a great variety of file  
formats registered in a plurality of web servers, by using  
an index server, the information retrieving method  
comprising:

15 a transmission step of transmitting an abstract and  
storage location information of design/manufacturing  
information registered in said web servers, to an index  
server during an idle time of said web servers; and

20 an automatic registration step of automatically  
registering an abstract and storage location information  
transmitted from web servers by said transmitting unit, into  
said index server,

25 wherein CAD design/manufacturing information such as  
a structure diagram or a circuit diagram of the ICAD-MX is  
converted into text information, thereby to automatically  
generate an abstract.

27. A computer-readable recording medium recorded with a program for retrieving design/manufacturing information of a great variety of file formats registered in a plurality of web servers, by using an index server,

5           the recording medium being recorded with a program comprising:

              a transmission step of transmitting an abstract and storage location information of design/manufacturing information registered in said web servers, to an index 10 server during an idle time of said web servers; and

              an automatic registration step of automatically registering an abstract and storage location information transmitted from web servers by said transmitting unit, into said index server.

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